

SIMON FRASER UNIVERSITY

S.82-119

MEMORANDUM

To..... SENATE

From..... SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Subject..... GEOGRAPHY CHANGES - NEW COURSES

Date..... NOVEMBER 17, 1982

Action undertaken by the Senate Committee on Undergraduate Studies at its meetings of November 9, 1982 and November 16, 1982 gives rise to the following motion:-

MOTION:

"That Senate approve and recommend approval to the Board of Governors, as set forth in S.82-119, the proposed

- New courses - GEOG 265-3 - Geography of British Columbia
- GEOG 311-3 - Hydrology
- GEOG 411-5 - Models in Hydrometeorology
- GEOG 423-5 - Geography of Tourism and Outdoor Recreation
- GEOG 426-5 - Industrial Organization, Location and Planning."

FOR INFORMATION:

Acting under delegated authority at its meeting of November 16, 1982 the Senate Committee on Undergraduate Studies approved change in prerequisite for GEOG 312-3 - Geography of Natural Hazards - and change in title and description for GEOG 413-5.



# SIMON FRASER UNIVERSITY

## MEMORANDUM

To..... Sheila Roberts  
Administrative Assistant  
Faculty of Arts  
.....  
Subject.....

From..... Ida Curtis  
Departmental Assistant  
Department of Geography  
.....  
Date..... October 29, 1982  
.....

The Department of Geography has recently completed a review of its undergraduate courses and has proposed the following additional courses:

Geog. 265-3 "Geography of British Columbia"  
Geog. 311-3 "Hydrology"  
Geog. 411-5 "Models in Hydrometeorology"  
Geog. 423-5 "Geography of Tourism and Outdoor Recreation"  
Geog. 426-5 "Industrial Organisation, Location and Planning"

Geog. 265 has already been offered regularly under a Selected-Regions title, and it was felt that it should have its own number.

The two hydrology courses will be offered to take advantage of the expertise of a new faculty member, W.G. Bailey.

As part of the review mentioned above, the Department has already dropped Geog. 201 and Geog. 406. Since some Geography courses are offered more frequently than necessary and the new courses are intended to fill out the program, the Department does not foresee a staffing problem.

*Ida*

cc: G.A. Rheumer

IC/nb

OFFICE OF THE DEAN

NOV - 1 1982

FACULTY OF ARTS

C-82-103

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

NEW COURSE PROPOSAL FORM

1. Calendar Information

Department Geography

Abbreviation Code: GEOG Course Number: 265 Credit Hours: 3 Vector: 2-1-0

Title of Course: Geography of British Columbia

Calendar Description of Course:

An examination of the physical landscape, the migration process, resource exploitation and the development of the settlement patterns.

Nature of Course Lecture/Tutorial

Prerequisites (or special instructions): None

What course (courses), if any, is being dropped from the calendar if this course is approved: None

2. Scheduling

How frequently will the course be offered?

Semester in which the course will first be offered?

Which of your present faculty would be available to make the proposed offering possible? P.M. Koroscil, G.A. Rheumer, M.L. Barker

3. Objectives of the Course

To provide students with a basic geographic understanding of British Columbia.

4. Budgetary and Space Requirements (for information only)

What additional resources will be required in the following areas:

Faculty None

Staff None

Library No additional materials

Audio Visual None

Space None

Equipment None

5. Approval

Date: 1992:10:15 Nov. 1 1982

[Signature]  
Department Chairman

[Signature]  
Dean

Chairman, SCUS

SCUS 73-34b:- (When completing this form, for instructions see Memorandum SCUS 73-34a. Attach course outline).

Simon Fraser University  
Department of Geography  
Fall Semester 1982

### Geography of British Columbia

A geographic interpretation of British Columbia. An examination of the impact of migration, resource exploitation and economic development on the settlement process and an analysis of the rural/urban pattern.

#### Course Organization

There will be a lecture followed by a discussion period.

#### Required Reading Material

J. Lewis Robinson (ed.) British Columbia, U. of Toronto Press, 1974.

#### Additional Reading and Reserve List

A list of additional references will be handed out in class.

#### Topics to be covered

1. The Physical Landscape and Interacting Components.
2. Vancouver Island - migration, resource exploitation and the settlement process.
3. Mainland - migrations, resource exploitation and the settlement process.
4. Industrial landscape.
5. Agrarian landscape.
6. Utopian Settlements.
7. Towns and Cities - Development and Non-Development.

#### The Geography of British Columbia -- Rationale

The Geography of British Columbia has been offered fairly regularly as Geography 263--"Selected Regions." In addition to Geography students, it also attracts education students and it is one of the courses in the Certificate program in B.C. Studies. It is time for the course to become a permanent part of the Geography program, with a number and course description of its own.

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

NEW COURSE PROPOSAL FORM

1. Calendar Information

Department Geography

Abbreviation Code: GEOG Course Number: 311 Credit Hours: 3 Vector: 2-0-2

Title of Course: Hydrology

Calendar Description of Course:

An introduction to hydrology; examination of the global hydrological cycle and its components; description and analysis of the processes of water movement and storage.

Nature of Course Lecture/Laboratory

Prerequisites (or special instructions):

At least 30 credit hours, including GEOG 111.

What course (courses), if any, is being dropped from the calendar if this course is approved: None

2. Scheduling

How frequently will the course be offered? once per year

Semester in which the course will first be offered? 83-3

Which of your present faculty would be available to make the proposed offering possible? W.G. Bailey, M.C. Roberts, E.J. Hickin, R.B. Sagar

3. Objectives of the Course

To introduce students to: a) the global hydrological cycle and its components  
b) the processes of water movement and storage, and the techniques used in their study.

4. Budgetary and Space Requirements (for information only)

What additional resources will be required in the following areas:

Faculty none

Staff none

Library no additional materials

Audio Visual none

Space none

Equipment none

5. Approval

Date: 1982 10 15 Nov. 1, 1982

[Signature]  
Department Chairman

RC Brown  
Dean

[Signature]  
Chairman, SCUS

SCUS 73-34b:- (When completing this form, for instructions see Memorandum SCUS 73-34a. Attach course outline).

Course Outline

HYDROLOGY

Description: This course provides an introduction to hydrology. The storage and movement of water through the global hydrological cycle will be examined. Description and analysis of the processes of water movement and storage will form the central theme.

Lecture Topics:

1. Properties of water
2. Global hydrological cycle and the water balance
3. Precipitation
4. Evaporation and transpiration
5. Runoff and rivers
6. Drainage
7. Soil moisture
8. Lakes and oceans
9. Snow and ice
10. Groundwater

Textbook: Ward, R.C., 1967: Principles of Hydrology. McGraw-Hill, Toronto, 403pp.

Organization: The lecture portion of the course involves one 2 hour lecture per week. In addition, there is a 2 hour laboratory session each week.

<u>Evaluation Scheme:</u>	Mid-term examination	20
	Laboratory assignments	40
	Final examination	40
		<u>100</u>

Geography 311

Hydrology

Rationale:

A new 300-level course in hydrology is proposed. This course will be an addition to the present theme courses already offered in physical geography (Geog. 313, 314, 315, 317, 318). It will complement these courses and is intended to provide an introduction to the scientific study of water. It will be fundamentally concerned with the global hydrological cycle and its components and the processes important in water movement and storage. In addition, the importance of water is becoming increasingly more apparent. This course will provide students with an introductory background to the study and nature of water that may be applicable in many other avenues of study.

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

NEW COURSE PROPOSAL FORM

1. Calendar Information

Department Geography  
Credit Hours: 5 Vector: 2-3-0

Abbreviation Code: GEOG Course Number: 411

Title of Course: Models in Hydrometeorology

**Calendar Description of Course:**

Introduction to current research efforts in hydrometeorology; application of mathematical models to describe and analyze processes of water transfer.

Nature of Course Lecture/Seminar

**Prerequisites (or special instructions):**

At least 60 credit hours including GEOG 313, GEOG 311, and MATH 151 & 152 or MATH 154 & 155.

What course (courses), if any, is being dropped from the calendar if this course is approved: None

2. Scheduling

How frequently will the course be offered? once per year

Semester in which the course will first be offered? 84-1

Which of your present faculty would be available to make the proposed offering possible? W.G. Bailey, R.B. Sagar

3. Objectives of the Course

To provide students with a working understanding and knowledge of current modelling approaches used in the study of water transfer processes in the atmosphere and at the earth's surface.

4. Budgetary and Space Requirements (for information only)

What additional resources will be required in the following areas:

Faculty none

Staff none

Library no additional materials

Audio Visual none

Space none

Equipment

5. Approval

Date: 1982-10-15 Nov. 1, 1982

[Signature]  
Department Chairman

[Signature]  
Dean

[Signature]  
Chairman, SCUS

SCUS 73-34b:- (When completing this form, for instructions see Memorandum SCUS 73-34a. Attach course outline).

Course Outline

MODELS IN HYDROMETEOROLOGY

Description: Hydrometeorology is concerned with the study of the atmosphere and land phases of the hydrological cycle and the processes involved in water transfer. This course will acquaint the student with current research efforts in hydrometeorology. The focus of the course will be the application of mathematical models to both describe and analyze processes of water transfer.

Lecture topics:

1. Mathematical models and their application to natural processes
2. Precipitation processes
3. Evaporation and transpiration
4. Turbulent transfer exchange
5. Soil moisture movement
6. Effects of changing spatial and temporal scales on modelling approaches

Reading material:

1. Textbook: Bruce, J.P. and R.H. Clark, 1966: Introduction to Hydrometeorology. Pergamon Press, Toronto, 319pp.
2. Other readings from the scientific literature will be assigned during the course.

Organization: The lecture portion of the course involves one 2 hour lecture per week. In addition, there will be a 3 hour seminar session each week.

Term paper: A term paper will be required for the course. A list of topics and general guidelines will be provided during the first week of class.

<u>Evaluation scheme:</u>	Seminar assignments	30
	Term paper	40
	Final examination	<u>30</u>
		100

Geography 411

Models in Hydrometeorology

Rationale:

A new 400-level course in hydrometeorology is proposed. Hydrometeorology is concerned with the study of the atmospheric and terrestrial parts of the hydrological cycle. The central theme of the course will be the description and analysis of processes of water movement and storage. Hence it will draw upon the prerequisites of Geog. 311 (Hydrology) and Geog. 313 (Climatology). As current research and application concerns can no longer be addressed in a non-quantitative fashion, the course will introduce mathematical modelling approaches. It is intended that the course will introduce students to the nature and application of models. Focus will be given to familiarizing students with the application of mathematic models to both the description and analysis of processes of water transfer and storage.



SENATE COMMITTEE ON UNDERGRADUATE STUDIES

NEW COURSE PROPOSAL FORM

1. Calendar Information

Department GEOGRAPHY

Abbreviation Code: GEOG Course Number: 423 Credit Hours: 5 Vector: 2-3-0

Title of Course: GEOGRAPHY OF TOURISM AND OUTDOOR RECREATION

**Calendar Description of Course:**

Factors underlying the changing geography of tourism and outdoor recreation on a regional, national, and international scale. Case studies from a variety of cultural settings illustrate planning strategies designed to cope with economic, social, and biophysical impacts.

Nature of Course Lecture/Seminar

**Prerequisites (or special instructions):**

At least 60 credit hours, including Geog. 121, 141 and 12 hours of courses from Geography, Division A.

What course (courses), if any, is being dropped from the calendar if this course is approved:

2. Scheduling

How frequently will the course be offered? At least once every 2 years

Semester in which the course will first be offered? 84-1

Which of your present faculty would be available to make the proposed offering possible? M.L. Barker, P.L. Wagner

3. Objectives of the Course To provide a framework for understanding: (1) the changing concept of leisure, and the historical evolution of supply and demand for outdoor recreation and tourism opportunities; (2) traveller characteristics and factors influencing participation; (3) the provision of outdoor recreation and tourism opportunities in rural and urban settings; (4) the concept of changing capacity and problems associated with the biophysical, economic, and social imports of outdoor recreation and tourism; and

4. Budgetary and Space Requirements (for information only) (5) management responses and planning strategies developed to cope with specific problems.

What additional resources will be required in the following areas:

Faculty	None
Staff	None
Library	Limited acquisition of most recent texts. (Good journals collection.)
Audio Visual	None
Space	None
Equipment	None

5. Approval

Date: 1982-10-15 Nov. 1, 1982

[Signature]  
Department Chairman

[Signature]  
Dean

[Signature]  
Chairman, SCUS

SCUS 73-34b:- (When completing this form, for instructions see Memorandum SCUS 73-34a. Attach course outline).

## GEOGRAPHY OF TOURISM AND OUTDOOR RECREATION

A new 400-level course is proposed in order to provide a rigorous basis for: (1) understanding the changing patterns and impacts of tourism and outdoor recreation at the regional, national, and international scale; and (2) evaluating strategies that have been developed in response to emergent problems.

Dramatic increases in discretionary income and mobility in industrialized nations have resulted in an exponential growth in demand for outdoor recreation and tourism opportunities since the 1950's. Such opportunities range across a very broad spectrum that includes such diverse activities as the use of urban neighbourhood parks, second home ownership, packaged vacations on cruise ships or at tropical island resorts, visiting National Parks, and trekking in remote Himalayan valleys.

Some regional and national economies (e.g. Hawaii, Mexico, Austria) have become critically dependent on tourism revenues. In such cases, strategies developed to offer protection against congestion, changes in consumer preferences, and the impact of international currency fluctuations have met with varying degrees of success. Elsewhere, the tourism sector is less highly developed but the recent rapid growth in visitor numbers has resulted in significant impacts on the physical environment, land-use patterns, and cultural traditions (e.g. the Himalayas). Here it is necessary to ensure that the capacity of the biophysical environment and culture to absorb such impacts is not exceeded.

In the Canadian context, a number of issues have emerged as a consequence of increased participation in outdoor recreation and tourism during the last two decades. One can cite as examples Canada's two billion dollar travel deficit, growing conflicts between recreationists and other resource users (e.g. hikers and loggers) or between environmental groups and tourism promoters (e.g. Banff National Park), and localized disputes between different groups of recreationists (e.g. snowmobilers and cross-country skiers).

The proposed course would be arranged around a number of coherent themes in order to encompass key trends in such a broad spectrum. It is the intention to draw upon two geographic traditions of studying man-land relations and spatial relations to provide a framework for understanding:

1. the concept of leisure, and the historical evolution of supply and demand for outdoor recreation and tourism opportunities;
2. the nature and pattern of participation: implications of the spatial and temporal pattern of demand, traveller characteristics and demand forecasting;
3. the provision of outdoor recreation and tourism opportunities in rural and urban settings: recreational land classification, scenic quality and landscape attractiveness, etc.;
4. the concept of carrying capacity and problems associated with the biophysical, economic, and social impacts of outdoor recreation and tourism;

5. Management responses and planning strategies developed to cope with specific problems.

Case studies drawn from a variety of cultural settings will be used throughout the course. Examples may include tourism impacts in the Himalayas and the Caribbean, tourism planning strategies in the Alps, ski resort investment policies in western Canada, and wilderness management approaches in Canada and the United States.

#### Required Reading

The course is intended to integrate a number of themes drawn from a broad spectrum, using sources from the geographic literature and other disciplines. While no single text can cover all the material, contributors to this rapidly-developing field have written a number of volumes which should be made available to the students. The Library collection meets the essential requirements of the course but it would be necessary to add some of the most recent publications.

The most useful volumes in the existing library collection include:

Emanuel de Kadt, 1979. Tourism: Passport to Development? (Perspectives on the Social and Cultural Effects of Tourism in Developing Countries.) N.Y.: Oxford University Press (published for the World Bank and UNESCO).

I.G. Simmons, 1975. Rural Recreation in the Industrial World. London: Edward Arnold.

Lloyd E. Hudman, 1980. Tourism: A Shrinking World. Columbus, Ohio: Grid Inc.

Douglas M. Knudson, 1980. Outdoor Recreation. N.Y.: MacMillan Pub. Co. Inc.

C. Frank Brockman, et al., 1979. Recreational Use of Wildlands. N.Y.: McGraw-Hill. 3rd. ed.

The reserve readings would include a range of specialised texts in the field, and articles from the following journals:

Journal of Leisure Research  
Annals of Tourism Research  
Recreation Canada  
Recreation Management  
Journal of Environmental Management  
Environmental Conservation  
Biological Conservation  
Environmental Impact Assessment Review  
Canadian Geographer  
Geographical Review  
Annals, Association of American Geographers  
Professional Geography  
Economic Geography  
Ontario Geography

Alternatives  
Environment and Behaviour  
Revue de Géographie Alpine  
Geographische Rundschau  
Geographica Helvetica  
Geografiska Annaler  
Land Economics  
American Economic Review  
Quarterly Journal of Economics  
Journal of American Institute of Planners  
Plan (Canada)  
Audubon  
Wildlife Review  
Nature Canada  
Naturopa  
Journal of Forestry  
Forestry Chronicle  
Forestalk  
Sierra Club Bulletin  
B.C. Outdoors  
Conservationist  
Science  
Research Paper Series, U.S. Forest Service, Intermountain  
Forest and Range Experiment Station

For the purposes of this course, the periodicals collection is good.  
The only significant additions that I would like to see are:

Mountain Research and Development (1980-)

and the publications of the IUCN (International Union for the Conservation of Nature and Natural Resources) e.g. UN List of National Parks and Related Reserves.

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

NEW COURSE PROPOSAL FORM

Geography

1. Calendar Information

Department

Abbreviation Code: GEOG Course Number: 426 Credit Hours: 5 Vector: 3-2-0

Title of Course: Industrial Organisation, Location and Planning

Calendar Description of Course: Relationships between corporate and regional planning and methods for assessing the effectiveness of locational incentive schemes.

Nature of Course Lecture, seminar/workshops and fieldwork.

Prerequisites (or special instructions): GEOG. 323 and GEOG. 383

What course (courses), if any, is being dropped from the calendar if this course is approved:

2. Scheduling

How frequently will the course be offered? At least once every two years

Semester in which the course will first be offered? 84-1

Which of your present faculty would be available to make the proposed offering possible? Roger Hayter, T.I. Gunton

3. Objectives of the Course

(1) to provide an understanding of the extent and nature to which the structure and policies of industrial organisations respond to and constrain the goals and priorities of regional economic planning.

(2) to provide a practical appreciation of primarily survey based methods used to evaluate the local economic impacts of industrial organisation and the effectiveness of

4. Budgetary and Space Requirements (for information only) industrial incentive programmes.

What additional resources will be required in the following areas:

Faculty

Staff

Library

Audio Visual

Space

Equipment Course will require use of one, possibly two, departmental vehicles for a 4 - 5 day period.

5. Approval

Date: 1982-10-15 Nov. 1, 1982

[Signature]  
Department Chairman

[Signature]  
Dean

[Signature]  
Chairman, SCUS

SCUS 73-34b:- (When completing this form, for instructions see Memorandum SCUS 73-34a. Attach course outline).

# Industrial Organisation, Location and Planning

## Course Outline

1. Overview of the nature and extent of industrialisation in peripheral areas in terms of organisational, geographical and industrial characteristics with particular reference to the Western Canadian context.
2. The spatial structure of corporate systems and the nature and stability of inter-firm linkages.
3. Flexibility in location, the role of locational incentives and assessing "footloosedness".
4. Methods for assessing the extent to which locational incentive schemes generate "incremental effects".
5. The geographic multiplier and the impacts of the entry of resource processing and secondary manufacturing activities on labour supply, local labour markets and income.
6. Methods for assessing the contribution of externally controlled investments in manufacturing activities on regional structural change.
7. Coping with uncertainty: corporate and community responses.

## Rationale

The rationale for the proposed course, in terms of its potential contribution to existing undergraduate courses, is twofold. First, it offers to systematically explore the relationships between the organisation of industry, the location of economic activity and regional economic planning with particular reference to Canadian conditions. Second, particular attention will be given to the problems of evaluating the local economic impacts of decisions made by individual organisations in response to locational incentive schemes. As such the proposed course is a logical extension and (partial) integration of Geog. 323 and Geog. 383 which focus on the dimensions of regional industrial change and regional planning respectively. The proposed course will also complement the land use and primary resource orientation of existing 4th year rural planning and resource management courses.

UNDERGRADUATE CURRICULUM

DEPARTMENT OF GEOGRAPHY

p. 164      GEOG 312-3 Geography of Natural Hazards (2-1-0)

CHANGE OF PREREQUISITE

FROM: At least 30 credit hours, including GEOG 111 or 112.

TO: At least 30 credit hours, including GEOG 111 or 112. Students with credit for GEOG 212-3 may not take this course for further credit.

RATIONALE: GEOG 312 Geography of Natural Hazards replaces GEOG 212 Geography of Natural Hazards). Students who already have GEOG 212 should not be able to take GEOG 312 for further credit.

p. 165      GEOG 413-5 Geomorphology II (2-1-2)

CHANGE OF COURSE TITLE

FROM: The Hydrology and Geomorphology of Drainage Basins

TO: Geomorphology II

CHANGE OF DESCRIPTION

FROM: The morphology and evolution of drainage basins: analysis of surface and sub-surface flow in the drainage basin; stream-hillslope erosion and sedimentation.

TO: Advanced theory and analysis of landform development, with emphases on fluvial processes and the geomorphology of alpine environments.

RATIONALE: This recommended change in the title and course description for GEOG 413 is necessary because of overlap and duplication of course material with the new proposed courses in Hydrology (GEOG 311) and Hydrometeorology (GEOG 411).

Approval of this change is contingent on the approval of these two courses.